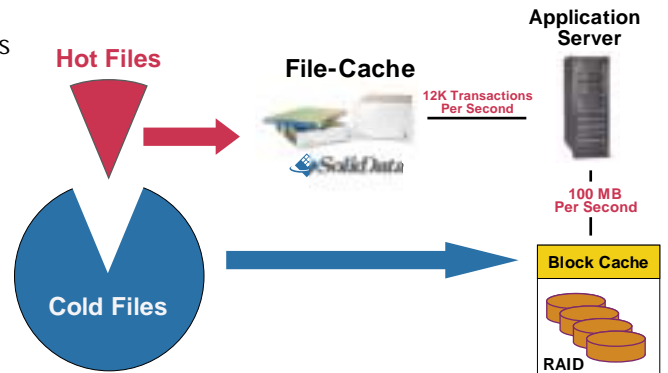# *Telecom Solutions*

Telecom Value-Added Services (VAS)

- Multiplies the throughput of business-critical transactions as much as 100% - 1000%
- Reduces cost of transaction-intensive applications on a per-transaction basis
- Delivers instant-access data storage with the speed of main memory and the persistence of disk storage

MVAS Architectural elements

Mobile VAS have the ideal application profile for file-cache. By placing the files that are constantly being used by the application ("hot files") on a file-caching system, the file-cache architecture eliminates mechanical latency of traditional disk arrays (RAID), as illustrated above.

Solid Data provides solid-state file-caching systems that enable telecommunications service providers to grow their business by increasing their ability to deliver more transactions and messages - deploying a broad array of Value-Added Services (VAS) while reducing cost and complexity. Solid Data's unique offering combines software and hardware functionality to enable customers to achieve significant performance improvements in transaction-intensive VAS applications such as billing, Short Messaging Service Centre (SMSC), multimedia messaging, prepaid, WAP, and voice mail alert.

Most VAS applications share similar characteristics:

- business-critical service
- 24 x 7 availability required
- large number of small data records to be processed
- random access to the application by customers
- rapidly growing demand for the service / application
- transaction-intensive applications
- real time processing necessary
- need for ease of scalability

VAS applications that significantly benefit from placing hot files on Solid Data file-cache include:

- wireless text messaging (SMS)
- prepaid mobile billing
- anti spamming
- call detail record (CDR) mediation
- fraud detection
- ring-tone download
- location-based services
- mobile internet (WAP)
- multimedia messaging service (MMS)
- micro-payments

Examples of operators today using Solid Data file cache with their VAS solutions include:

Asia Pacific
Japan - 3 Mobile Operators
Hong Kong - Hutchison
Singapore - SingTel
Australia - Optus, Telstra
Taiwan - KGT

Europe
UK - BT Cellnet, Vodafone
Germany - Viag, E Plus
Belgium - Proximus
Italy - Blu

Americas
USA - AWS
Brazil -TeleSP, TeleRJ

SolidData ®

Solid Data provides file-caching systems that multiply the throughput of business-critical transactions for Mobile Value-Added Services such as wireless messaging.

Example Configuration - Wireless Messaging

Without Solid Data File Cache

20GB JBOD

Server

Performance:
- Message throughput: 500,000 / day

Cost:
- Cost of solution: $2.0 million
- Cost per message: $0.0111

With Solid Data File Cache

5GB file cache

15GB JBOD

Server

Performance:
- Message throughput: 1.4 million / day

Cost:
- Cost of solution: $2.3 million
- Cost per message: $0.0046

180% Increase in Throughput
60% Decrease in Cost per Message

	e-100	800	800N	1000
Capacity (GB)[1]				
Minimum	1.07	1.07	1.07	1.07
Maximum	4.28	21.4	21.4	34.24
Host Interface Options				
Ultra SCSI HVD or LVD (40 MB/sec)	2	2	2	2
Fibre Channel (100 MB/sec)	N/A	1 or 2	N/A	1 or 2
Data Protection				
Patented Automatic Data Retention System™	Yes	Yes	Yes	Yes
On-Board UPS	Yes	Yes	Yes	Yes
On-Board Data Retention Disk	Fixed	Hot Swap	Fixed	Hot Swap
Retention/Restore Rate (GB/minute)	.75	1	1	1
Redundant Power Supply	No	Yes	Yes	Yes
Physical				
Width (in/mm)	19.0/482.6	19.0/482.6	19.0/482.6	19.0/482.6
Height				
Rack Units	1U	3U	3U	7U
Measure (in/mm)	1.75/44.4	5.25/133.3	5.25/133.3	12.25/311.1
	40,000/12,192	40,000/12,192	40,000/12,192	40,000/12,192
Regulatory Compliances				
UL, C-UL, FCC, VDE/TUV, CD, VCCI, SCC	Yes	Yes	Yes	Yes
NEBS Level 3	N/A	N/A	Yes[2]	N/A
(See Web site for most current approvals)				

For additional information,
visit Solid Data at www.soliddata.com/solutions/telecom
or email Solid Data at telecom@soliddata.com

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